

Keynotes

July 1999

Atlantic Oceanographic and Meteorological Laboratory

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QuikSCAT Data Fine Tunes Forecasts

NASA's much anticipated Quick Scatterometer, or QuikSCAT, was successfully launched June 18, 1999 from Vandenberg Air Force Base in California. QuikSCAT is a "quick" replacement for NSCAT, the NASA scatterometer mounted aboard ADEOS (Advanced Earth Observing Satellite) that failed after less than a year of operation in June 1997. QuikSCAT's two-year mission will fill the data gap created by the loss of NSCAT.

SeaWinds, the microwave radar science instrument aboard QuikSCAT, will provide 25-km resolution measurements of both the direction and speed of winds near the ocean surface in all types of cloud and weather conditions. NOAA will use the data SeaWinds provides to improve weather forecasts and storm warnings. The data will help forecasters more accurately determine the path and intensity of tropical storms and hurricanes.

AOML's Hurricane Research Division and Microwave Remote Sensing Group will work with colleagues at the Jet Propulsion Laboratory to perform calibration tests of the first data arriving from the satellite. The tests will check the correctness of pre-launch algorithms for wind speeds above 50 knots.

Fourth of July Holiday:

**Monday
July 5, 1999**



New Buoys to Aid Air-Sea Rescue Operations

In early June, a group of buoys suddenly appeared along the driveway leading to AOML's parking lot. Besides creating a curious site, many wondered why they were sitting in the grass rather than floating in the ocean. Actually, the buoys are a new type of drifter being tested at AOML by scientists from the Physical Oceanography Division's Global Drifter Center.

Tests on the buoys are expected to be completed by the middle of July, at which time they will be deployed off the coast of Ft. Lauderdale into the Gulf Stream. The buoys will be used as part of a cooperative program between the University of Miami's Rosenstiel School of Marine and Atmospheric Science and the Global Drifter Center that supports ongoing research with the Navy and Coast Guard to improve air-sea rescue operations. The program is being funded by the Office of Naval Research.

The buoys are standard World Ocean Circulation Experiment (WOCE) Lagrangian drifters outfitted with a global positioning system (GPS) receiver and an ORBCOMM transmitter. ORBCOMM is a low-Earth orbiting satellite system that relays data from the drifters to a ground station and then sends the data to users via e-mail.



Specially-outfitted Lagrangian drifting buoys will be used to aid search and rescue operations.

Happy Fourth of July 1999!

In spite of weather forecasts predicting heavy rain due to the passage of a tropical wave, AOML staff and families once again participated in the Key Biscayne Fourth of July Parade on Sunday, July 4, 1999. Fortunately, hot and sunny weather prevailed, producing a picture-perfect day for the parade. Respite from the heat was provided by AOML Director Kristina Katsaros, who graciously invited everyone over to her house for a picnic luncheon after the parade.



AOML staffers at the Key Biscayne Fourth of July Parade.



Meeting Will Address Caribbean Hurricane Concerns

An international meeting on hurricanes and the Caribbean will be chaired by Stanley Goldenberg, meteorologist with AOML's Hurricane Research Division, on July 20-21, 1999 at the Sonesta Beach Hotel in Miami. "Impact of Climate Variations on Caribbean Region Hurricanes: Towards Understanding Linkages and Enhancing Application of Climate Information in the Caribbean" has been organized in response to the devastating effects of the 1998 hurricane season on the island nations of the Caribbean and the expected above-average activity anticipated for the 1999 season.

Participants will include individuals from the U.S. and from various nations of the Caribbean with expertise in hurricane structure and dynamics, emergency planning, disaster mitigation, and the application of climate information for societal benefit. Among those giving presentations will be Michael Black, Stanley Goldenberg, Christopher Landsea, and Hugh Willoughby, all from the Hurricane Research Division.

Meeting objectives will focus on:

- The relationship between climate variation and hurricanes in the Caribbean region (including forecast information for this season).
- The potential applications of this understanding in the Caribbean to maximize preparedness.
- How to improve the production, availability, dissemination, and application of seasonal outlooks, including hurricane information.

Sponsors of the event include NOAA's Office of Global Programs, the Office of Disaster Affairs of the U.S. Agency for International Development, the National Science Foundation, and the Organization of American States.

PhOD Scientists Participate in Landmark Cruise

This past March scientists from AOML's Physical Oceanography Division participated in ECOFRONT-1, an international research cruise aboard the Cuban research vessel *Ulises*. ECOFRONT-1 (Ecosystem Study of Oceanic Frontal Zones in the Yucatan Current) was unique in that it marked the first time a Cuban-flagged ship has received authorization to dock at a U.S. port since the late 1950s. Due to the scientific nature of *Ulises*' mission, however, permission to dock was granted by the U.S. State Department despite the long-standing trade embargo against Cuba.

PhOD's Christiane Fleurant, Ryan Smith, and Doug Wilson boarded the 253-ft. long B.I.C. *Ulises*, Cuba's largest research vessel, in St. Petersburg, Florida. They were joined by scientists from Cuba, Mexico, and Canada to investigate how currents in the Yucatan Strait affect the transport of plankton. By learning about the movement of plankton, they hoped to gain a better understanding of how red tide organisms circulate in the Gulf of Mexico. Red tides result from large algae blooms that create a red sheen on the surface of salt water bodies. The blooms produce toxins that affect the central nervous systems of fish, resulting in massive fish kills.

ECOFront-1 also helped identify possible sites for the future deployment of remote sensing oceanographic instruments. These remote sensors will serve as the basis for a regional early warning system to detect climatic, ecological, and oceanographic events. Such events could include outbreaks of red tide, spills of hazardous or toxic materials, tidal surges that jeopardize oil platforms, currents that endanger ships, fish population mortalities, etc.



The 253-ft R/V *Ulises* arrives at St. Petersburg, Florida in March. She is the first post-embargo, Cuban-flagged vessel to clear into a U.S. port.



Aboard the R/V *Ulises*, scientists from the United States, Cuba, Mexico, and Canada prepare for the first station in a section across the "neck" of the Gulf of Mexico's Loop Current.

Reminder:



The "NOAA Policies Agreement Form" and "Emergency Contact Information Form" from the new *AOML Handbook* must be returned to Nina Liebig, Office of the Director.

FIRE DRILL

TUESDAY, JULY 13, 1999

**Fire Safety Orientation at 1:00 p.m.
by the Metro-Dade Fire Department
First-Floor Conference Room**



Congratulations

Robert Kohler, Computer Programmer with the Hurricane Research Division, has been selected to become the new Director of AOML's Computer Networks and Services Division (formerly called the Automated Data Processing group).

Kristina Katsaros, AOML Director, and husband Michael Katsaros celebrated their 40th wedding anniversary on June 20, 1999 with a family reunion at Whidbey Island, Washington, the site of their wedding.

Chunzai Wang, a CIMAS Assistant Scientist working with the Physical Oceanography Division, received the 1998 Award for Outstanding Research from the University of South Florida for his studies on climate variability.

Congratulations to the following AOML staffers who were recently converted to federal government service:

- Jason Masters, formerly employed by CIMAS, is now an Oceanographer with the Ocean Chemistry Division.
- Jannette Perez, formerly a contract employee, is now an Administrative Student Trainee with the Office of the Director.
- Ryan Smith, formerly employed by CIMAS, is now an Oceanographer with the Physical Oceanography Division.
- Erica Van Coverden, formerly employed by CIMAS, is now a General Physical Scientist with the Office of the Director.

Farewell

Luis Amat, Computer Specialist with the Hurricane Research Division, resigned from AOML on July 9, 1999. A three-year veteran of AOML, Luis joins the Oracle Corporation as a Consultant. Best of luck to Luis for his continued success.

FWP Annual Workshop Highlights AOML Specialities

The Federal Women's Program (FWP) sponsored its annual workshop at the University of Miami's Rosenstiel School of Marine and Atmospheric Science on June 17, 1999. Joyce Berkeley, AOML's FWP program manager, organized the event in collaboration with the Federal Women's Council of Greater Miami and program managers from other federal agencies in the Miami area.

The workshops consisted of a series of informative one-hour sessions. Several AOML staff members volunteered their time and expertise to assist the Federal Women's Program by serving as workshop presenters: Stanley Goldenberg presented a session on hurricane preparedness and hurricane shutters; John Gamache presented information about observing hurricanes from a "hurricane under's" perspective; Paul Dammann presented information to increase understanding of the HTML language used for Internet web page design; and Alejandra Lorenzo presented a seminar about public speaking. Dr. Bret Elkind, an affiliate of AOML's Ocean Acoustics Division, also volunteered his expertise to present a session devoted to improving writing skills.

The workshops were well attended and enjoyed by all. Approximately 75 individuals participated.



Dr. Bret Elkind presents a writing skills seminar on behalf of the Federal Women's Program.

Recycling bins for aluminum cans are now located in the first-floor lobby, on second and third floors next to the mailboxes, the fourth floor next to the kitchen, and on the fifth floor next to the copy machine. Monies collected from aluminum can recycling will help purchase raffle gifts and a tree for AOML's 1999 Holiday party.



AEROBICS CLASS

Monday • Wednesday • Friday

11:30 a.m. - 12:30 p.m.
(½ hr kick-boxing/½ hr toning)

First-Floor Conference Room

Contact Ginger Garte

(305-361-4430 or
garte@aoml.noaa.gov)

All-You-Can-Eat

Pizza

Tuesday, July 13, 1999

12:00 Noon

First-Floor
Conference Room

Cost: \$5.00

(sponsored by the Morale, Welfare,
and Recreation Committee)

INFORMAL RESEARCH REPORTS: JULY 1999*

Date	Division	Speaker	Title of Report
July 6, 1999	PhOD	Dr. Silvia Garzoli	Ageostrophic transports in the tropical Atlantic.

*All reports begin at 3:00 p.m. in the first-floor conference room.

Travel

John Proni and Terry Nelsen discussed cooperative projects with U.S. Army Corp of Engineers personnel in Vicksburg, Mississippi on July 6-9, 1999.

Michael Black, Peter Dodge, and Shirley Murillo will attend the 29th International Conference on Radar Meteorology in Montreal, Quebec, Canada on July 11-16, 1999.

Gregg Thomas will travel to Houston, Texas to service the thermosalinograph (TSG) system aboard the *Melbourne Star* on July 11-12, 1999. Mr. Thomas will then travel to Norfolk, Virginia to complete a TSG installation aboard the Icelandic container vessel *Selfoss* on July 15-16, 1999. From July 29-August 2, 1999, Mr. Thomas will participate in a high density expendable bathythermograph (XBT) cruise aboard the *Sealand Crusader* from Newark, New Jersey to San Juan, Puerto Rico.

Kristina Katsaros will travel to Silver Spring, Maryland to serve as the Environmental Research Laboratories' Acting Director from July 12-August 6, 1999.

Rik Wanninkhof, Jia-Zhong Zang, Kitack Lee, and Tsung-Hung Peng will attend the JGOSS Synthesis Modeling Project Workshop in Keystone, Colorado on July 12-16, 1999.

Sim Aberson will attend a NOAA Diversity Council Meeting in Silver Spring, Maryland on July 22-23, 1999.

Joyce Berkeley will attend the 1999 Federally Employed Women National Training Program in Phoenix, Arizona on July 19-23, 1999.

Shari Yvon-Lewis will attend the 22nd General Assembly of the International Union of Geodesy and Geophysics (IUGG99) in Birmingham, England on July 22-23 and present a paper entitled "Oceanic contributions to organic bromine in the atmosphere."

Warren Krug and Craig Engler will attend the Indian Ocean/South Atlantic International Buoy Programs Meeting in Cape Town, South Africa on July 26-30, 1999.

Pot Luck Luncheon

Thursday, July 29, 1999

12:00 noon

First-Floor Lobby

Bring a dish to share with others

(sponsored by the Morale, Welfare, and Recreation Committee)

Summer Institute Program Explores Climate Variability

The Inter-American Institute for Global Change Research (IAI) and the University of Miami's Rosenstiel School of Marine and Atmospheric Science (UM-RSMAS) will jointly sponsor the first Summer Institute on Interdisciplinary Global Change Science in the Americas on July 11-30, 1999 in Miami, Florida. The theme for the IAI-UM Summer Institute is "Interactions between Seasonal to Interannual Climate Variability and Human Systems."



Participants will explore links between climate variability associated with the El Niño-Southern Oscillation (ENSO) phenomenon and important socio-economic sectors (e.g., agriculture, management of water resources). Participants will also explore the implications of the emerging capability to forecast the occurrence on ENSO events with lead time of several months, and the feasibility of incorporating this information into decision-making or policy-making processes.



Climatologists, climate modelers, agronomists, hydrologists, resource economists, sociologists, environmental attorneys, or experts from related disciplines are invited to apply. Preference will be given to scientists beginning their careers (post-doctoral scientists, recent graduates, "becarios"), but advanced graduate students or senior scientists will also be considered. Participants must be affiliated with a research, educational, or resource management institution in an IAI member country.

Keynotes is published monthly by the Atlantic Oceanographic and Meteorological Laboratory. Contributions are welcome and should be submitted prior to the last week of each month to ensure inclusion in the following month's edition. Please address all correspondence to the Office of the Director, 4301 Rickenbacker Causeway, Miami, FL 33149. Contributions may also be submitted by fax at (305) 361-4442 or by email (derr@aoml.noaa.gov).

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The deadline for submitting material for the August issue of *Keynotes* is Friday, July 23, 1999.

Keynotes can be viewed online in PDF format at the following Internet web site address:
<http://www.aoml.noaa.gov/keynotes>